INTERNATIONAL SEARCH REPORT

nai Application No Interi PCT/US 00/41164

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04L27/233 H04J3/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) H04J IPC 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal, INSPEC, COMPENDEX

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Category	Citation of document, with incloding.	
X	WO 97 19557 A (STANFORD TELECOMM INC) 29 May 1997 (1997-05-29) page 5 figure 2	1-43
X	US 5 930 268 A (RYAN KATHLEEN HELEN ET AL) 27 July 1999 (1999-07-27) figure 5 column 3, line 47 - line 56 column 4, line 24 - line 33	1-43
X	US 5 579 321 A (GRINSVEN PETRUS AUGUSTINUS VAN ET AL) 26 November 1996 (1996-11-26) column 7, line 1 - line 24	1-43
А	US 3 911 368 A (TARCZY-HORNOCH ZOLTAN) 7 October 1975 (1975-10-07) column 1, line 34 - line 40	13,16, 27,30,35
	-/	

Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filling date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filling date but later than the priority date claimed	 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention. 'X' document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone. 'Y' document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
3 May 2001	09/05/2001
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016	Orozco Roura, C

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Inter: anal Application No
PCT/US 00/41164

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT						
Category °		Relevant to claim No.				
A	EP 0 833 482 A (NIPPON ELECTRIC CO) 1 April 1998 (1998-04-01) abstract	6,20				
A	WO 99 34529 A (PHILIPS) 8 July 1999 (1999-07-08) page 2, line 3 - line 7 page 8, line 24 -page 9, line 17	32				
1						

1

INTERNATIONAL SEARCH REPORT

Intern. nai Application No
PCT/US 00/41164

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9719557	A	29-05-1997	US 5794119 A AU 716711 B AU 1741997 A BR 9611821 A CA 2237465 A CN 1203003 A EP 0862834 A JP 2000512813 T	11-08-1998 02-03-2000 11-06-1997 13-07-1999 29-05-1997 23-12-1998 09-09-1998 26-09-2000
US 5930268	Α	27-07-1999	CN 1186399 A GB 2320656 A KR 258711 B	01-07-1998 24-06-1998 15-06-2000
US 5579321	Α	26-11-1996	CA 2118849 A EP 0616443 A JP 7143154 A	16-09-1994 21-09-1994 02-06-1995
US 3911368	Α	07-10-1975	NONE	
EP 0833482	Α	01-04-1998	CA 2214163 A JP 10155004 A US 6016329 A	27-03-1998 09-06-1998 18-01-2000
WO 9934529	Α	08-07-1999	US 6205167 B CN 1253675 T EP 0960485 A	20-03-2001 17-05-2000 01-12-1999